

was a Pintail. I know of another Pintail shot in the same district the same year on the 13th August. Snipe have been heard of in Sylhet at the end of April.

(3) During the season 1935-36 in the Sadiya Frontier Tract of Assam I shot a Fantail on the 8th August and a further eight couple Fantails on the 21st August.

(4) In the same District (Sadiya) during 1936-37, I saw a snipe on the 19th August but failed to secure it. I bagged a Pintail on the 20th August, two more on the 21st August and a further 3½ couple Pintails on the 22nd of the same month. Snipe do not appear to stay late in this District and I know of none shot after March. I feel certain however that the first birds reach the district at the end of July for all the birds shot in August have shown no signs of their long journey southwards being in very good condition and very lively. It is interesting to note that, whilst in August 1935 all the first birds shot were Fantails all the first birds shot in 1936 were Pintails!

Further information as to the first arrivals and the latest recorded snipe particularly from areas just south of the Himalayas would be interesting.

GAUHATI,
KAMRUP DISTRICT, ASSAM.
December 31, 1937.

R. E. PARSONS,
Indian Police.

XVI.—OCCURRENCE OF THE SHELDRAKE (*TADORNA TADORNA*) IN MURSHIDABAD DISTRICT, BENGAL.

It might be of interest to record the occurrence of the Sheldrake (*Tadorna tadorna*) in district Murshidabad, Bengal, a small party of some 5 or 6 of the birds having been seen by a friend and myself on a piece of open water on December 5th 1937. The Sheldrake which were observed at about 100 yards' range through field-glasses were not mixing with the numerous other ducks on the water (mostly Pintail) but formed a small party of themselves near the edge. I understand this species is a somewhat rare visitor to this part of India.

Another fairly interesting occurrence of this season in the same district the Mallard (*Anas platyrhyncha*), two having been obtained on November 21st and one on November 28th, others having been seen on both days.

1, CLIVE STREET,
CALCUTTA,
December 17, 1937.

R. J. CLOUGH.

XVII.—NOTE ON THE PYTHON.

A few days ago I obtained a python near a small 'busti'. The reptile was said to have caught and swallowed a goat the previous afternoon, at the edge of a paddy field, and had moved

a distance of only about twenty-five yards into thick undergrowth, to sleep off the effects of its rather large meal.

In order to lighten the carcass for easy transport to my car, and also so that the owner of the goat might regain his lost property, (for he was of the opinion that it would still be quite good to eat), I opened up the snake and removed the goat, which latter was incidentally a large one and quite above average size.

The goat had been swallowed head foremost and rather more on its back than side, as the sharp points of the horns could be seen in the tightly stretched belly skin of the python. Digestion had only slightly commenced round the head and neck, where some of the hair had gone, and the bare skin had turned a dark colour. This was at 11 a.m. and if my information was correct, about 19 to 20 hours after swallowing. (Pretty slow digestion!) With the exception of this discolouration the goat was absolutely intact, no wounds were visible and no bones appeared to be broken. The python was not a large one, measuring a bare 14 feet 6 inches.

The few books in my possession that mention this subject, would have one believe that the python crushes its victim into a sausage-like mass before swallowing, but in this instance the crushing process had certainly not taken place. Even the legs were unbroken, the fore ones doubled back, and the hind ones *forward*, under the belly.

Questions that seem to need answering, are:—(1) How was the goat killed without wounds being inflicted, or bones broken? (2) How did the hind legs assume the position mentioned above? (3) Why were the usual signs of crushing entirely absent? Is it possible that the goat was swallowed alive, and therefore died of suffocation, thus accounting for the lack of wounds and broken bones, and also the position of the hind legs, in that they were caught in this position by the jaws of the snake during its (the goat's) death struggles? Finally, would a python of this size find the goat small enough to make crushing unnecessary, and only employ this method on larger animals?

It would be of great interest to know if the natural feeding habits of the python have been accurately observed, and also how such an apparently sluggish snake is able to catch wary creatures like wild pig, and barking deer, as they undoubtedly do.

Since writing the foregoing I have discussed the matter with a friend, who is a very keen observer with long experience in Assam, and I quote with his permission, two out of many instances that go to prove his contention of the habits of the python, in obtaining its food.

It is his opinion that the python waits beside a path used by domestic animals or game, near a tree stump or sapling that offers an anchorage for his tail, and lies (perhaps for days), with the fore part of his body in the form of an 'S'. When the unsuspecting victim comes along, this 'S' is straightened out with lightning-like rapidity, and the snake using its head as a battering ram, delivers a blow that 'knocks the wind out' of the animal, if not actually killing it on the spot. It then throws its body upon the animal,

and using the purchase of its tail from the convenient stump or sapling, presses down with terrific force until life is extinct.

In support of this; in each of the two instances mentioned above, a goat was killed by a python, but the reptile was disturbed before swallowing had commenced. In each instance the animal had been killed with no apparent wounds, on a pathway. Again, in each case there was a tree stump or sapling nearby, and from the latter a definite impression of the snake (described by my friend, as resembling a small trench), leading towards the pathway, of about the right length to allow of a turn of the tail round the stump, with the 'S' formation at the head end, within striking distance of the path.

My friend, on both occasions found the reptile lying up just where his experience had led him to expect it, and in the attitude described above. He also mentioned that both goats were found with the eyes wide open and a placid expression, giving no indication of having died in great pain or fear.

TINKONG TEA ESTATE,
TINKONG P.O.,
ASSAM.

A. J. YANDLE.

November 4, 1937.

[Snakes being limbless invariably seize their prey with their jaws: but the teeth of snakes are fragile and ill-adapted to hold a struggling animal; movement of the prey is arrested either, with the paralysing effect of poison, or, when this is insufficient or wanting, the snake holds its quarry still by encircling it with its coils. Boas and Pythons deal with their prey according to size. Invariably the victim is seized with the jaws. It is a question of actual seizure; not merely of knocking the animal over with a battering blow of the head. The mouth and head of a python are not built for such usage. When seized in the jaws, if the prey is small and makes no struggle the snake does not attempt to wind its body around it but proceeds to swallow it. Frogs and lizards are frequently swallowed alive and have been rescued little the worse for their experience. If the prey is bulky or struggles, the coils are brought into use to stop movement. There is no intention to crush or break bones, and this seldom happens. The extent to which the quarry is encircled and the amount of pressure exerted is proportionate to the struggles of the victim. But the vice-like grip of the snake, preventing expansion of the lungs or the muscular action of the heart, results in killing the prey by asphyxiation. This explains why in the incident described above the goat was without wounds. The teeth would make little apparent impression on a hairy animal, and why there were no bones broken or apparent signs of crushing—death was brought about in the usual way by asphyxiation; the position of the hind legs was merely incidental to the manner of seizure in the coils of the snake. The python's method of attack both under conditions of captivity or in the wild state has been frequently observed. The snake may make its seizure on

the ground. In forest country it may climb into trees, where it hides so securely that even so alert a creature as a monkey is frequently taken unawares and meets its death, or the snake, with the help of its prehensile tail, suspends itself partly from the branches like a great aerial root, and from this position strikes at the unsuspecting quarry passing below. The element of surprise is part of the attack and the prey is seized and enmeshed in the coils before it is able to realise what has happened.—Eds.]

XVIII.—AN INSTANCE OF 'VIVIPARITY' IN *MABUYA CARINATA* (SCHN.).

Malcolm A. Smith¹ in describing the habits of *Mabuya carinata* says 'It is usually stated that this skink is viviparous, but such is not the case. A female kept by Father Dreckmann in captivity laid twenty-three eggs; from another female he recovered twenty-two eggs. All are about the same size—about 13 by 8 mm.; none of those examined showed any trace of embryo'. My observations show that *Mabuya carinata* is ovoviviparous. Some years back I came across, one morning in a school garden, a partly mutilated skink. On opening the body of the animal I found a number of eggs all of which showed developing embryos. I could observe closely the heart beat and circulation of blood. The stage of development roughly corresponded to a three-day-old chick embryo. Two of these embryos which I stained and mounted are still with me.

Subsequently I came across a case of oviparity in a skink in Annamalainagar. The egg clutch is now in the Zoology Laboratory of the Annamalai University.

ANNAMALAI UNIVERSITY,
ANNAMALAI NAGAR.

R. V. SESHAIYA,
Lecturer in Zoology.

XIX.—A SUPPLEMENTARY LIST OF THE PYRALIDAE OF CALCUTTA.

Some time back (*Journ. Bomb. Nat. Hist. Soc.*, xxxviii, p. 204) I recorded 91 species of Pyralidae taken in Calcutta. One species, *Ercta elutalis*, Wlk., must be deleted from this list, the specimen in question being a particularly pale example of *Ercta ornatalis*, Dup., and two species, *Ramila marginella*, Moore and *Ceratarcha umbrosa*, Swinh. must be corrected to *Ramila acciusalis*, Wlk. and *Phryganodes analis*, Snell.

I now add a further 33 species, bringing the total to 123 to date.
Mucialla rufivena, Wlk.
Crambus atkinsoni, Zell.
Platytes argentisparsalis, Hmps.
Scirpophaga bisignata, Swinh.

¹ *Fauna of British India Reptilia and Amphibia* (Vol. ii) by Malcolm A. Smith. (New series.)